Defense Environmental Management Privatization

Proposed Appropriation Language

For Department of Energy expenses for privatization projects necessary for atomic energy defense environmental management activities authorized by the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), [$189,000,000] *$515,000,000*, to remain available until expended. *(Energy and Water Development Appropriations Act, 2000.*)

Explanation of Change

None

Defense Environmental Management Privatization

Program Mission

The Department of Energy (DOE) began working with the private sector in the 1940's when it contracted to design, construct, and operate the facilities used to build nuclear weapons during the Manhattan Project. During the period of weapons production and in the early years of the Environmental Management (EM) program, the management and operating contract was the typical method of contracting. This mechanism contained very general work scope under which DOE reimbursed essentially all contractor costs while also paying the contractor an additional fee based on either a fixed fee schedule or, in a few cases, based on a subjective determination of performance (i.e. award fee).

In an effort to meet the enormous cleanup challenge in the face of declining resources, EM began utilizing, where appropriate, privatization as a mechanism to deal with these demands. Privatization is a contracting strategy that should reduce the project risk to the government and achieve cleanup more cost-effectively. Under privatization, the EM program provides financial incentives to the contractors to substantially reduce EM cleanup costs while ensuring that an appropriate technical and financial risk/reward balance between DOE and the contractors is maintained. The use of privatization is expected to result in cleanup being accomplished sooner in comparison to the traditional Management and Operating contractor approach, thus supporting the EM vision of completing substantial cleanup at most EM sites within the next decade.

As provided in the National Defense Authorization Act for Fiscal Year 1998, contracts for EM Privatization projects should meet the following criteria: be awarded on a competitive basis; require the contractor to construct or acquire any equipment or facilities required to carry out the contract; require the contractor to bear any of the costs of the construction, acquisition, operation of such equipment or facilities that arise before the commencement of the provision of goods or services under the contract; provide for payment to the contractor under the contract only upon the meeting of performance specifications in the contract. The EM focus in utilizing this methodology is to gain an edge through private sector best-in-class management capability, business strategies, technological approaches, schedule enhancements, regulatory experience and cost efficiencies. This type of project funding is widely used in the private sector to finance power plants and other investments. The Department believes the privatization program is the most cost-effective approach for some selected projects.

This program is budgeted for under the appropriation account: Defense Environmental Management Privatization. The Defense Environmental Management Privatization request for FY 2001 is $540.1 million, an increase of $307.8 million compared to the amount provided for Privatization in FY 2000. The FY 2001 request is required to continue the Idaho Advanced Mixed Waste Treatment Project and the Richland Tank Waste Remediation System privatization projects, and the Idaho Spent Nuclear Fuel Dry Storage Project.

Program Goal

The goal of Privatization is to accomplish work traditionally performed by Management and Operating/Management and Integration contractors in the cost-plus contract environment in a more cost-effective manner.

Program Objectives

- Reduce the project risk to the government and achieve cleanup more cost-effectively;
- Provide financial incentives to contractors to substantially reduce EM cleanup costs while ensuring that an appropriate technical and financial risk/reward balance between DOE and the contractor is maintained; and
- Continue the active support and commitment to ongoing privatization projects aimed at reducing the overall cost of environmental cleanup activities.

Performance Measures

- Start construction of the Oak Ridge Transuranic Waste Treatment project;
- Ship 3,462 cubic meters of contact-handled waste to Waste Isolation Pilot Plant assuming resolution of legal concerns.
- Start construction of the Advanced Mixed Waste Treatment Project in the third quarter of FY 2000. Delays in obtaining environmental regulatory permits have resulted in delay in start of facility construction.
- Award the contract for spent nuclear fuel dry storage project in FY 1999 or early FY 2000. Original target estimated contract award date for this project has been delayed from the fourth quarter in FY 1999 to the second quarter of FY 2000.
- Award the contract for the Oak Ridge Environmental Management/Waste Management Disposal privatization project in FY 2000.
- Achieve the Authorization to proceed decision for the construction and operations phase (phase 1B2) of the Tank Waste Remediation System contract at the Hanford site.

There are no new starts scheduled for FY 2001.

Significant Accomplishments and Program Shifts

- In December 1999, following the issuance of the Record of Decision and submittal of the Privatization Project report to Congress, a fixed-price, performance-based contract was awarded to Waste Management Federal Services, Inc for the design, construction, operation and capping of the Environmental Management/Waste Management disposal facility at the Oak Ridge Reservation. Based on the contract

pricing for capital construction of the initial 400,000 cubic yard facility, project costs were significantly reduced. In response to the cost-effective privatization approach, Congress reduced the available budget authority to $19,500,000 ($39 million less than the $58,500,000 budget authority originally requested through FY 2000).

- In August 1998, the Department negotiated a contract with BNFL, Inc., to proceed into Phase B of the Tank Waste Remediation System project at Hanford, Washington. BNFL will continue with the design of the facility. Long lead time materials will be specified to support the scheduled construction completion dates and operation of the respective facilities. In addition, in order to more effectively manage the Tank Waste Remediation System, and in response to Congressional directive, the Secretary established the Office of River Protection at the Hanford, Washington site to directly oversee this project.

- After careful deliberation, the Department determined that a portion of the Carlsbad privatization projects was not feasible. Thus, $25,092,000 was deemed available to use in support of the FY 2001 Privatization program level.

- In August 1998, the Department awarded, through competitive procurement, a contract for the treatment of transuranic waste in Oak Ridge, Tennessee to the Foster Wheeler Environmental Corporation. The contract was awarded for approximately $50.0 million less in Total Estimated Cost than the original Management and Operating contractor estimate.

- The Department authorized BNFL, Inc., to commence facility construction of the Advanced Mixed Waste Treatment Project, Idaho Falls, Idaho (FY 1999). Site mobilization activities were performed in FY 1999. Facility construction is expected to start in FY 2000.

- The Department is presently in the final stages of the procurement process with award planned for second quarter FY 2000 for the Spent Nuclear Fuel Dry Storage project at Idaho Falls, Idaho. The schedule to begin operation has been changed from July 1, 2003 to December 31, 2004. An incentive will be offered to bring the start of operation back to as close to July 1, 2003 as possible. The estimated capital cost of the project has increased from $120 million in the FY 2000 data sheet to $197.9 million in the FY 2001 data sheet. The $197.9 million is based on the selected contractors proposed price of $181 million plus $16.8 million for incentives for early completion and economic price adjustments. The scope used in the DOE solicitation was increased from the original independent Government cost estimate performed by the Army Corps of Engineers in 1998 and the M&O contractor estimate used to develop the FY 2000 data sheet. The Army Corps of Engineers and M&O contractor revised their respective estimates upward in 1999 by over $100 million (TPC) in order to include previous omissions and accurately reflect the scope of the DOE solicitation. The more significant changes to these cost estimates include a revision of design and licensing costs, pricing three specific fuel types and quantities, adding utility costs, the inclusion of necessary processing equipment (e.g. fuel handling fixtures and systems; fuel conditioning; canister sealing and welding, nondestructive examination processes and equipment; canister inerting; canister drying and weighting; process waste treatment; storage and disposal), the associated cost of operations, characterization processes, security systems, requirements for the use of standard canisters, and an 18 month extension of the contract performance period.

Award privatization contract for design, licensing, construction and operation of the Independent Spent Fuel Storage Installation (ISFSI).

Issue Requirements Document, Project Management Plan, and Master Schedule for ISFSI.

Funding Profile

(dollars in thousands)

	FY 1999 Current Appropriation	FY 2000 Original Appropriation	FY 2000 Adjustments	FY 2000 Current Appropriation	FY 2001 Request
Privatization	260,357	233,000	(718)	232,282	540,092
Subtotal, Privatization	260,357	233,000	(718)	232,282	540,092
Use of Prior Year Balances	(32,000)	(44,000)	0	(44,000)	(25,092)
Total, Privatization	228,357	189,000	(718)	188,282	515,000

Public Law Authorizations:

Public Law 95-91, “Department of Energy Organization Act (1977)”

Public Law 106-60, “The Energy and Water Development Appropriations Act, 2000"

Public Law 106-65, “The National Defense Authorization Act For Fiscal Year 2000"

Public Law 103-62, “Government Performance and Results Act of 1993"

Funding by Site

(dollars in thousands)

	FY 1999	FY 2000	FY 2001	$ Change	% Change
Carlsbad Area Office (NM)	19,605	0	0	0	>999.9%
Idaho Operations Office (ID)	107,252	114,646	90,092	-24,554	-21.4%
Oak Ridge Operations Office (TN)	33,500	11,963	0	-11,963	-100.0%
Richland Operations Office (WA)	100,000	105,673	450,000	344,327	325.8%
Subtotal, Privatization	260,357	232,282	540,092	307,810	132.5%
Use of Prior Year Balances	-32,000	-44,000	-25,092	18,908	-43.0%
Total, Privatization	228,357	188,282	515,000	326,718	173.5%

Detailed Program Justification

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
CAO-6 Remote Handled Transuranic Waste Transportation; Carlsbad, New Mexico			
The Waste Isolation Pilot Plant is expected to begin receiving waste requiring specialized transportation. A private vendor will provide transportation of remote-handled transuranic waste from generator sites the Waste Isolation Pilot Plant. A standard fee will be paid based on weight and mileage. Site-specific treatment plans developed under the Federal Facility Compliance Act and the associated consent orders and agreements with the states and EPA (across the DOE complex) require disposal of transuranic waste. The Department anticipates contract award by June FY 2000.			
Total, CAO-6	19,605	0	0
ID-WM-104 Advanced Mixed Waste Treatment Project; Idaho Falls, Idaho			
This project has been in development at the Idaho National Engineering and Environmental Laboratory since 1993. A contract was awarded to BNFL, Inc., in December 1996, for the retrieval, sorting, characterization, storage, pre-treatment, treatment, certification and loading for transportation of 65,000 cubic meters of alpha and transuranic mixed waste located in retrievable storage at the Idaho National Engineering and Environmental Laboratory Radioactive Waste Management Complex. The contract has an option for treatment of up to 120,000 cubic meters of additional Idaho National Engineering and Environmental Laboratory and DOE mixed wastes. The project scope is to treat Idaho National Engineering and Environmental Laboratory Transuranic and alpha mixed waste, as well as other DOE mixed waste in the complex, through a private sector treatment facility located at the Idaho National Engineering and Environmental Laboratory.			
The primary wastes to be treated are DOE laboratory and process wastes generated at Rocky Flats and various DOE facilities. These wastes are currently stored in drums, boxes and bins at the Idaho National Engineering and Environmental Laboratory Transuranic Storage Area of Radioactive Waste Management Complex.			

(dollars in thousands)

FY 1999	FY 2000	FY 2001

Waste consists of a heterogeneous mixture of solid materials including paper, cloth, rubber, plastic, glass, graphite, bricks, concrete, metal, nitrate salts, process sludges, miscellaneous components and some absorbed liquids. Some wastes also contain Toxic Substance and Control Act regulated materials such as polychlorinated biphenyls. No more than 4,100 kilograms (kg) of elemental mercury, and approximately 2.1 million kg of lead is expected in the 65,000 cubic meters.

This project is necessary to meet the requirement in the October 1995, Idaho Settlement Agreement to ship all transuranic waste out of Idaho by the target year of 2015 and no later than 2018. It is also necessary to meet site treatment plan milestones under the Federal Facility Compliance Act. The transuranic waste will be disposed at the Waste Isolation Pilot Plant near Carlsbad, NM.
Non-transuranic wastes which are not allowed to be disposed at Waste Isolation Pilot Plant (e.g. low-level and mixed wastes) will be disposed in accordance with applicable requirements.

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
The Advanced Mixed Waste Treatment Project is a privatized, fixed-price contract and will be performed in three phases. Phase I consists of facility permitting, preliminary facility/process design, and establishing the facility safety basis. Phase II consists of final facility/process design, facility construction, and testing. Phase III consists of facility operations, Resource Conservation and Recovery Act (RCRA) closure and Decontamination & Decommission. The service shall treat waste to meet RCRA Land Disposal Restrictions. Meeting this requirement will also fulfill Waste Isolation Pilot Plant Waste Acceptance Criteria and Toxic Substance and Control Act requirements. Transportation support for shipment of the waste from Idaho National Engineering and Environmental Laboratory to the Waste Isolation Pilot Plant is required and will be performed under a separate Waste Isolation Pilot Plant-managed contract. In accordance with the Idaho Settlement Agreement, facility construction will be complete by December 2002, and operations will commence no later than March 2003. Shipments of waste from the Advanced Mixed Waste Treatment Project are expected to begin in late 2003. Funding requested through FY 2001, $332.3 million provides for about 58 percent of the full funding required for this project. Future budget requests of $237.1 million will cover the remainder of construction costs of this project. These funds will cover the remote possibility of termination of the contract and will eventually be used to reimburse capital expenditures after service commences.			
Total, ID-WM-104	87,252	109,661	65,000

OR-364 Transuranic Waste Treatment; Oak Ridge, Tennessee

The project provides for the treatment of transuranic waste located at various areas within the Oak Ridge Reservation by the private contractor selected through a competitive procurement for this four phase project. Phase 1 will be a fixed-price contract for licensing and permitting and will be funded from the base program. Phase II will consist of construction of the treatment system and any pre-testing required by the Waste Isolation Pilot Plant, Nevada Test Site, or the regulatory agencies and is funded by the privatization program.

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
Phase III will consist of removal of sludge waste from the tanks and treatment of sludge and solid waste in the licensed/permitted facility and Phase IV will consist of decontamination and decommissioning.			
Total, OR-364	0	11,963	0

ID-SNF-105 Spent Nuclear Fuel Dry Storage; Idaho Falls, Idaho

The Spent Nuclear Fuel Dry Storage Project will provide Nuclear Regulatory Commission-licensed interim dry storage of three types of Spent Nuclear Fuel (SNF) at the Idaho National Engineering and Environmental Laboratory (INEEL). The fuel currently resides in facilities on the INEEL, at various universities, and at foreign research reactors. This project would place SNF containing approximately 55 Metric Tons Heavy Metal into dry interim storage.

This project includes the following services:

- # Design and NRC license for a SNF dry transfer and storage facility. (The contractor is the licensee.)
- # Conceptual design for a NRC licensed transportation system to transfer the SNF out of Idaho.
- # Dry Transfer Capability to allow cask receipt from the Management and Operations and dry transfer of SNF assemblies into standard dry storage canisters. The canisters are standard canisters designed for storage in future federal respository.
- # Independent Spent Fuel Storage Installation (ISFSI) as defined by NRC license.
- # Loading of the designated fuels into the ISFSI beginning as early as July 1, 2003, and completing in FY 2009.
- # Operation of Dry Transfer Facility and ISFSI in accordance with the contractor's NRC license conditions through FY 2009.

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
The dry transfer and interim storage facilities may also be used to transfer other DOE-owned SNF to dry storage. The need for SNF transfer capability spans 35 years. An October 17, 1995, Federal court-ordered agreement between the State of Idaho, DOE, and the Navy directs that all spent nuclear fuel will be out of wet storage by 2023 and shipped out of the State of Idaho by January 1, 2035. The Order additionally mandates an appropriation request for fiscal year 1998 for DOE to initiate procurement of dry storage at the INEEL. The Order requires initiation of SNF loading into dry storage by July 1, 2003.			
# Submit Safety Analysis Report, Environmental Report and License Application to the Nuclear Regulatory Commission.			
Total, ID-SNF-105	20,000	4,985	25,092
OR-174 Environmental Management/Waste Management Disposal; Oak Ridge, Tennessee			
The project provides for the purchase of waste disposal services from a private vendor for low-level, hazardous, Toxic Substance and Control Act defined, and mixed wastes generated at Oak Ridge. The contract will pay a fixed unit price for the disposal service. This project is required to support the Oak Ridge Federal Facilities Agreement and the efficient cost-effective disposal of site-wide CERCLA wastes.			
Cleanup, decontamination and decommissioning projects at Oak Ridge are expected to produce significant volumes of contaminated soils and debris in need of permanent disposal. This project provides for creation of an on-site disposal facility with a capacity of up to 0.84 million cubic meters of waste. This project permits the efficient completion of numerous site projects within budget ceilings. Off-site waste shipments would not allow completion of numerous projects within the current budget caps. A Record of Decsion was approved in November 1999, authorizing the construction of the facility and reflecting the board Stakeholder support for the project.			
Total, OR-174	33,500	0	0

(dollars in thousands)

FY 1999	FY 2000	FY 2001

RL-TW06 Tank Waste Remediation System, Phase I; Richland, Washington

As part of the Reinventing Government and Contract Reform Initiatives, DOE evaluated the feasibility of privatizing all or part of the Hanford Tank Waste Remediation System. It was determined that a two Phase approach to Tank Waste Remediation System privatization was desirable, both from an economic standpoint and from the point of view of private vendors. The first of the two phases would be a commercial demonstration phase where private vendors would treat sufficient waste to demonstrate to both DOE and to the financial community that they were capable of treating the remainder of the tank waste in a larger, second phase effort. Phase II would complete the treatment of the tank wastes. In September 1996, Tank Waste Remediation System privatization contracts were awarded to teams lead by Lockheed Martin Environmental Services and BNFL, Inc.. These contracts were for Phase 1 of the Tank Waste Remediation System privatization and consisted of Part A and Part B.

Part A was a twenty-month period to establish the technical, operational, regulatory, business, and financial elements required by privatization facilities that will provide tank waste treatment services on a fixed-unit-price basis. The two contractors provided required deliverables to the Department after 16 months. As a result of the analyses of these deliverables, the Department determined the Lockheed Martin Environmental Services proposal to be non-viable. On July 21, 1998, the Department delivered the Report to Congress, Treatment and Immobilization of Hanford Radioactive Tank Waste providing notification prior to entering into a privatization contract.

(dollars in thousands)

	FY 1999	FY 2000	FY 2001
After the 30-day waiting period the Department negotiated a contract to proceed with BNFL, Inc., into Phase B. However, to better define the project and quantify project risks and to enhance the contractor's ability to obtain financing, it was determined that Phase B would be further divided into Phase B-1, a 24-month design phase, and Phase B-2, the construction and operations phase. A decision point has been established for the Department to determine the viability of proceeding into Phase B-2 before BNFL, Inc. begins construction. In addition, the contract has provided for waste treatment services for both high-level and low activity waste. Waste treatment is expected to begin in 2007 and continue for at least ten years.			
Total, RL-TW06	100,000	105,673	450,000

Metrics
Authorization to Proceed to Phase I, Part B-2 (August 2000).

Total, Privatization	260,357	232,282	540,092

Explanation of Funding Changes from FY 2000 to FY 2001

	FY 2001 vs. FY 2000 ($000)
Idaho Operations Office	
# Continues the requisite incremental funding for the Advanced Mixed Waste Treatment Project in Idaho Falls, Idaho.	-44,661
# Increase required for the Spent Nuclear Fuel Dry Storage Project in Idaho Falls, Idaho to submit Safety Analysis Report, Environmental Report, and License Application to the Nuclear Regulatory Commission	20,107
Oak Ridge Operations Office	
# Decrease in the amount for the Transuranic Waste Treatment project at Oak Ridge, Tennessee	-11,963
Richland Operations Office	

	FY 2001 vs. FY 2000 ($000)
# Provides the incremental funding necessary to cover the Phase B-2 design activities, initiation of construction and long lead procurements by BNFL, Inc. at Richland, Washington	344,327
Total Funding Change, Privatization	307,810

Operating Expense Funded Project Summary

(dollars in thousands)

Project Number	Project Title	TEC	Previous Approp	FY 1999 Approp	FY 2000 Approp	FY 2001 Request	Unappropriated Balance
99-PVT-1	Remote Handled Transuranic Waste Transportation, Carlsbad (WIPP) . .	19,605	0	19,605	0	0	0
98-PVT-2	Spent Nuclear Fuel Dry Storage, ID . . .	197,858	27,000	20,000	4,985	25,092	120,781
98-PVT-5	Environmental Management/Waste Management Disposal, OR	58,500	5,000	33,500	0	0	0
97-PVT-1	Tank Waste Remediation System Privatization Phase I, RL	5,466,000	285,000 [a]	100,000	105,673	450,000	4,369,327 [b]
97-PVT-2	Advanced Mixed Waste Treatment Project, ID	569,400	70,000 [c]	87,252	109,661	65,000	237,487
97-PVT-3	Transuranic Waste Treatment, OR . . .	76,963	65,000 [c]	0	11,963	0	0
Projects Removed from Privatization: [d]		0	46,000	44,605	0	0	0
Undistributed		NA	NA	7,000	N/A	NA	NA
SubTotal Operating		NA		292,357	232,282	540,092	NA
Use of Prior Year Balances		NA	NA	(32,000)	(44,000)	(25,092)	NA
Total Operating Funded Project, Defense Privatization		NA	330,000	260,357	188,282	515,000	NA

[a] $54.0 million was obligated in FY 1996 for Phase I, Part A – within the Defense Environmental Restoration and Waste Management Appropriation.

[b] This amount does not reflect the advance appropriation of $2.492 billion for Fiscal Years 2001 through 2004 for this project.

[c] Reflects appropriation in FY 1997 from Defense Environmental Restoration and Waste Management, Fixed Asset Acquisition/Privatization Account.

[d] Rocky Flats FY 1997 $10.0 million; Oak Ridge FY 1997 $15.0 million and Savannah River FY 1998 $25.0 million.

97-PVT-1, Tank Waste Remediation System Privatization Phase 1; Hanford, Washington

Significant Changes

- The Department of Energy projected an appropriations request level of $606 million for FY 2001 under Item 2, Financial Schedule, in the FY 2000 budget. The Department is now requesting $450 million in FY 2001 for this effort, which is a decrease of $156 million, and adjusting the outyear requests accordingly, as reflected in the Financial Schedule. Given the significant increase between the FY 2000 appropriation and the FY 2001 budget request and the uncertainty of the outcome of contract negotiations, the Department determined it would be conservative in its approach in requesting resources for Part B-2 of the contract. Pricing and funding information will be submitted by BNFL beginning in April 2000. The Department will be reviewing their submissions and will be negotiating the firm, fixed price for waste treatment for Part B-2 in support of the Authorization to Proceed decision point in August 2000. These negotiations will establish the pricing and funding requirements to support the BNFL's schedule for construction and hot start of operations. The $450 million and subsequent request levels under the Financial Schedule support initiation of hot start in FY 2007.
- There is a contractual requirement for DOE to provide monthly funding to BNFL in the event that there is a need to extend the current Part B-1 contract beyond the August 2000 completion date if there is no Authorization To Proceed into Part B-2. Budget Authority and outlays to maintain BNFL Inc. in a position to proceed into Part B-2 in the event that BNFL-DOE negotiations, DOE decision making and the Congressional Review do not occur within the 24-month time frame for B-1 will be offset from the Defense Environmental Restoration and Waste Management Appropriation, Post 2006 Completion Activity in FY 2000 and FY 2001.

1. Construction Schedule History

	Fiscal Quarter					
	A-E Work Initiated	A-E Work Completed	Physical Construction Start	Physical Construction Complete	Total Estimated Cost ($000)	Total Project Cost ($000)
FY 1999 Budget Request (*Preliminary Estimate*)	Jun 1998	Dec 1999	FY 2000	FY 2002	1,450,000	3,954,000
FY 2000 Budget Request (*Preliminary Estimate*)	Aug 1998	Jul 2001	FY 2001	FY 2007	5,466,000	12,488,000

FY 2001 Budget Request (Current Estimate)	Aug 1998	Jul 2001	FY 2001 [a]	FY 2007	5,466,000	12,488,000

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations [b]	Obligations [c]	Costs [d]
Capital			
1997	$170,000 [e]	$0	$0
1998	$115,000	20,000	0
1999	100,000	155,000	0
2000	105,673	219,000	50,000
2001	450,000	546,673	0
2002	690,000	690,000	0
2003	690,000	690,000	0
2004	662,000	662,000	0
2005	598,000	598,000	0
2006	564,000	564,000	58,000
2007	518,000	518,000	188,000
Outyears	803,000	803,000	5,169,673

[a] This date may need to be adjusted to accommodate BNFL's optimized cost and schedule.

[b] For multi-year funded projects, appropriation is needed a year ahead of contract commitments to preclude Anti-Deficiencies. M&O support costs to deliver Phase I minimum order quantity of 6% to 13% of tank wastes is $2.0 billion.

[c] Includes current contractor investment plus funds to maintain current project schedules (includes allowances for items such as long-lead procurements).

[d] Reflects latest known outlay projection.

[e] Office of Environmental Management Base Program appropriation of $54.0 million was obligated in FY 1995 and FY 1996 for Phase 1, Part A. These funds are part of "Other Project Costs" and are reflected in Section 6 of this data sheet.

3. Project Description, Justification and Scope

Radioactive waste has been stored in large underground storage tanks at the Hanford Site since 1944. Approximately 54 millions gallons of waste containing approximately 240,000 metric tons of processed chemicals and 250 mega-curies of radionuclides are currently being stored in 177 tanks. These caustic wastes are in the form of liquids, slurries, saltcakes, and sludge. In 1992, the Tank Waste Remediation System Program was established to manage, retrieve, treat, immobilize, and dispose of these wastes in a safe, environmentally sound, and cost-effective manner. The integrated Tank Waste Remediation System program was designed to include efforts to resolve a number of safety concerns and technical issues and to address past leakage from some of the underground storage tanks which have contaminated the vadose zone and, recent reports indicate, could have contributed to contamination of the groundwater. Storage in the current tanks is very costly; and, as the tanks age, potential for radioactive and chemical release increases, although short-term risks are low. The Tank Waste Remediation System program will substantially decrease the long-term costs and provide long-term protection of public health and safety and the environment by removing the wastes from the tanks and providing a waste form suitable for long-term disposal.

The Tank Waste Remediation System pathway for cleanup is formally documented in the Hanford Federal Facility Agreement and Consent Order, commonly known as the Tri-Party Agreement. Under the Tri-Party Agreement, DOE, the U.S. Environmental Protection Agency, and the Washington State Department of Ecology have agreed to a 30-year timetable for cleanup of the Hanford Site. Key dates related to the privatization project found in the Tri-Party Agreement are start construction of High Level Waste pretreatment facility by June 2001 (Tri-Party Agreement M-50-04-T01), start hot operations Phase 1 Pretreatment and Immobilization Facilities by December 2002 (Tri-Party Agreement M-60-12), and complete Pretreatment and Immobilization of all Hanford low activity waste by December 2024 (Tri-Party Agreement M-0-00). The ORP has negotiated an Agreement in Principle with the State that has established start of construction in July 2001, start of hot commissioning in December 2007, start of commercial operations in December 2009, and completion of Phase I in December 2018. This will serve as the basis for changes to the Tri- Party Agreement. Further changes to these dates will be negotiated with the parties to the Tri-Party Agreement to be consistent with the Part B-2 contract schedule.

The Hanford site processed more than 100,000 metric tons (110,000 tons) of uranium and generated several hundred thousand metric tons of wastes. The wastes include: high-level wastes (i.e., cesium-137 and strontium-90), low-level wastes, and hazardous wastes, which may exhibit dangerous characteristics of ignitability, corrosivity, reactivity, and toxicity. All of the waste is stored at Hanford and is being addressed in the Tank Waste Remediation System Program.

As part of the Reinventing Government and Contract Reform Initiatives, DOE evaluated the feasibility of privatizing all or part of the Hanford Tank Waste Remediation System. It was determined that a two-phase approach to Tank Waste Remediation System privatization is desirable, both from an economic standpoint and from the point of view of private vendors. The Tank Waste Remediation System project is now managed by the Manager, Office of River Protection.

Phase I will be an effort whose objectives are to: demonstrate the technical and business viability of using privatized facilities to treat Hanford tank waste; define and maintain required levels of nuclear, radiological, and occupational safety; maintain environmental protection and compliance; and substantially reduce life-cycle costs and time required to treat Hanford tank waste. Phase I consists of two parts. Part A was a 22-month period to establish the technical, operational, regulatory, business, and financial elements required by privatized facilities that will provide tank waste treatment services on a fixed-unit-price basis. BNFL, Inc. successfully completed all Phase 1, Part A technical requirements and was awarded a contract to complete Phase I, Part B in August 1998.

BNFL, Inc., has been authorized to proceed with Phase 1, Part B, which will be a period of 19 years during which that vendor will finance, design, construct, operate, and deactivate the waste-treatment facility. Part B will result in treatment of approximately 6 to 13 percent of the 54 million gallons of high-level tank waste in Hanford's storage tanks. Phase 1, Part B will have two segments, B-1 and B-2. During B-1, BNFL Inc., will design the facility, further develop regulatory requirements, and establish financing and fixed unit prices for treatment and immobilization of the high-level wastes. At the end of Part B-1, DOE will decide whether to proceed with Part B-2. During Part B-2, DOE will pay fixed unit prices for completion and acceptance of waste-treatment services according to contract specifications.

The contract with BNFL, Inc., requires BNFL, Inc., to perform value engineering studies to identify potential technologies, process flows, productivity improvements, etc., to improve cost and schedule performance. The Department also continues its efforts to find innovative ways to drive down cost of financing and reduce risks by identifying alternative technologies.

During Phase II, after completion of Phase I, DOE plans to complete processing the remaining tank waste through a second competitive procurement. The Phase II plan will be based on information and experience gained from Phase I.

In Phase I, wastes will be retrieved from the tanks and separated into low-activity and high-level waste. These wastes will be immobilized for storage and disposal according to specifications which meet all federal and state regulations. DOE will retain oversight responsibility for radiological and nuclear safety and for certain aspects of environmental compliance. The regulatory approach will be to use, when possible, established and functioning external regulatory authorities.

BNFL, Inc., will be responsible for protection of human health and the environment from radioactive materials, hazardous materials, contamination from dangerous wastes, and non-radiological worker safety and health from conventional hazards.

The *Report to Congress - Treatment and Immobilization of Hanford Radioactive Tank Waste*, dated July 1998, provided the decision process used by the Department in proceeding into Part B-1 with BNFL, Inc.. Additional detail was also provided on the business, financial, regulatory, technical, and management aspects of the BNFL, Inc. contract.

By proceeding with the BNFL, Inc., concept the Department has a greater range of technical and operational options than originally envisioned in the FY 1999 Congressional Budget. These options provide the ability to lower the total life cycle costs of treating the Hanford Tank Waste.

DOE is proceeding with a facility capable of operating for 30 years and one that has a greater range of technical and operational options. This provides DOE with the capability to lower the total life cycle cost of treating the Hanford Tank Waste.

Prior year appropriations of $490.7 million and the FY 2001 appropriation of $450.0 million will be used to authorize BNFL to proceed with Part B-2 of the contract for waste treatment. During FY 2001 BNFL will continue detailed design, implement radiological nuclear safety requirements, and continue planning for the operations of their facility. The appropriations will also cover the remote possibility of termination of the contract. The funds will eventually be used to reimburse capital expenditures after waste treatment services begin.

BNFL, Inc., will be required to reach financial closure (obtaining private sector financing for the construction of their facility) prior to the start of construction. In order to obtain financing BNFL, Inc., will have to complete approximately 30 percent design work. Detail design work involves the development of all structural detail drawings, mechanical systems design and detail drawings, electrical design and detail drawings, and all radiological, nuclear and process safety analyses required to support the design work.

During the development of the detail drawings, BNFL, Inc., will start to order the long-lead time materials required to support the construction of the facility, typically those items that require several years to obtain once the order is submitted. Structural long-lead time material would include any special structural members (unusual forms or sizes). Mechanical long-lead time materials include the cesium ion exchangers, Hastalloy tanks, Hastalloy piping, Hastalloy fittings, the low activity waste and high-level waste melters, and their respective control systems. Special distributive control systems will be ordered downstream to be completed prior to installation. The Department has a decision point for proceeding with BNFL, Inc., from Phase B-1 to Phase B-2 establishing a notice to proceed to construction in August 2000.

4. Details of Cost Estimate

(dollars in thousands)

	Current Estimate	Previous Estimate
Facility Construction	$5,251,881	$1,651,000
Facility Operations	1,724,047	1,438,318
Deactivation	214,119	172,366
Financing	2,528,848	439,000
Taxes	1,130,215	680,000

Fee/Profit	1,638,890	763,316
TOTAL	12,488,000	5,144,000

5. Method of Performance

The Department selected BNFL to proceed with Phase I, Part B. In Part B, BNFL, Inc., will finance, design, construct, operate, and deactivate their own facilities. Site infrastructure support to include tank retrieval systems, roads, utilities, etc. will be provided by the government utilizing the existing Management and Operations contractor. Phase I is expected to last 19 years and process approximately 6 percent to 13 percent of the tank waste volume.

BNFL, Inc., must finance the project, design the equipment and facility, apply for and receive required permits and licenses, construct the facility and bring it on-line, operate the facility to treat waste, and deactivate the facility. The contractor can recover the resources it has invested only through the delivery of acceptable services paid for by DOE on a fixed-unit-price basis. The underlying intent is to transfer the primary share of the financial, performance, and operational responsibility for the treatment effort from the Government to the contractor.

Ongoing Tri-Party Agreement negotiations could result in changes to the compliance milestones that the BNFL, Inc., facility must comply with. Changes to milestones could reflect a cleaner alignment of the compliance milestones with the current project milestones.

6. Schedule of Project Funding and Other Related Funding Requirements

(Dollars in Thousands)

	Prior Years	FY 1998	FY 1999	FY 2000	Outyears	Total
Project Cost						
Facility Cost						
Payments to Vendors	$0	$0	$0	$50,000	$5,416,000	$5,466,000
Other Project Cost						
Facility Operations – payments to contractor [a]		54,000 [b]	0	0	5,016,000	5,070,000
Facility Support – M&O support/Other [c]	0	101,000	112,000	133,000	1,597,000	1,952,000

[a] Of the total, $16.3 million will be paid for preliminary facility and process design activities, licensing and permitting (Phase 1 costs) funded from EM base operating program. Outyear payment to vendors includes D&D of $19.9 million.

[b] Represents payment to completing vendors for demonstration under Phase 1a.

[c] Facility infrastructure support (e.g. utilities, fire protection, etc.) are budgeted in the Defense Environmental Restoration and Waste Management, Post 2006 Completion Appropriation for the Office of River Protection.

Total, Other Project Cost	0	155,000	112,000	133,000	6,613,000	7,022,000
Total Project Cost	0	155,000	112,000	183,000	12,029,000	12,488,000

7. Related Annual Funding Requirements

(FY 2000 dollars in thousands)

	Current Estimate	Previous Estimate
Given the nature of the privatization contract, these operating costs are shown as part of the Total Project Cost.		
Total related annual funding	NA	NA

97-PVT-2, Advanced Mixed Waste Treatment Project, Idaho Falls, Idaho

Significant Changes

The Total Project Cost has been adjusted to reflect the current estimate of M&O support to the project during FY 2000-FY 2002.

1. Construction Schedule History

	Fiscal Quarter				Total Estimated Cost ($000)	Total Project Cost ($000)
	A-E Work Initiated	A-E Work Completed	Physical Construction Start	Physical Construction Complete		
FY 1998 Budget Request (*A-E and technical design only)* . . .	n/a	n/a	4Q 1999	1Q 2003	569,400 [a]	1,173,000 [b]
FY 1999 Budget Request (*Preliminary Estimate*)	n/a	n/a	4Q 1999	1Q 2003	569,400	1,078,900
FY 2000 Budget Request (*Current Estimate*)	n/a	n/a	4Q 1999	1Q 2003	569,400	1,115,400
FY 2001 Budget Request (*Current Estimate)*	n/a	n/a	1Q 2000	1Q 2003	569,400	1,114,450

[a] These estimates are based on a negotiated firm fixed price contract with a commercial firm. The contract includes a provision for price redetermination and economic price adjustment on the operating portion of the contract (Phase III). However, the capital portion of this contract is not subject to either price redetermination or economic price adjustment and is fixed.

[b] The Total Project Cost as defined here is the combined value DOE believes will be necessary to pay for the products or services contractually agreed upon plus other support costs. It includes Budget Authority requests for Privatization of $569.4 million; EM Base Program requests for direct payments to the vendor for Licensing and Permitting of $16.3 million, Facility Operations of $434.8 million, and D&D of $22.7 million. It also includes $66.4 million of M&O support and $4.8 million of other project office costs (e.g. NEPA).

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs [a]
Capital			
1997	70,000	0	0
1998	0	11,497	0
1999	87,252	115,839	0
2000	109,661	109,530	0
2001	65,000 [b]	64,740	0
2002	40,000 [b]	39,669	0
2003	105,000 [b]	104,877	22,700
2004	92,487 [b]	123,248	102,300
2005	0	0	159,400
2006	0	0	159,400
Outyears	0	0	125,600

3. Project Description, Justification and Scope

This project has been in development at the Idaho National Engineering and Environmental Laboratory since 1993. A contract was awarded to British Nuclear Fuels Limited, Inc.(BNFL, Inc.), on December 20, 1996, for the retrieval, sorting, characterization, storage, pre-treatment, treatment, certification, and loading for transportation of 65,000 cubic meters of alpha and transuranic mixed waste located in retrievable storage at the Idaho National Engineering and Environmental Laboratory Radioactive Waste Management Complex. The contract has an option for treatment of up to 120,000 cubic meters of additional Idaho National Engineering and Environmental Laboratory and DOE mixed wastes. The project scope is to treat Idaho National Engineering and Environmental Laboratory alpha and transuranic mixed waste, as well as other DOE mixed waste in the complex, through a private sector treatment facility located on the Radioactive Waste Management Complex at Idaho National Engineering and Environmental Laboratory.

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[a] This cost profile represents the annual liability increase to the government for this project based on work performed by the contractor. The liability is liquidated as waste is treated (see costs above).

[b] The amounts shown for FY 2001 through FY 2004 reflect current program baseline requirements. The Department will consider these requirements in the formulation of future budget requests.

The primary wastes to be treated are DOE laboratory and process wastes from Rocky Flats and various DOE facilities. These wastes are currently stored in drums, boxes, and bins at the Idaho National Engineering and Environmental Laboratory Transuranic Storage Area of Radioactive Waste Management Complex. Wastes consist of a heterogeneous mixture of solid materials including paper, cloth, plastic, rubber, glass, graphite, bricks, concrete, metals, nitrate salts, process sludges, miscellaneous components and some absorbed liquids. Ninety-five percent of the waste is believed to contain both RCRA hazardous waste constituents and radioactivity. Some wastes also contain Toxic Substances and Control Act regulated materials such as polychlorinated biphenyls. No more than 4,100 kilograms (kg) of elemental mercury, and approximately 2.1 million kg of lead is expected in the 65,000 cubic meters. The transuranic waste will be disposed of at the Waste Isolation Pilot Plant near Carlsbad, NM. Non-transuranic wastes which are not allowed to be disposed of at Waste Isolation Pilot Plant (e.g. low-level and mixed low-level wastes) will be disposed of in accordance with applicable waste disposal requirements.

This project is necessary to process alpha contaminated and transuranic mixed waste to produce a disposal-ready waste that meets all current requirements for storage, transportation and disposal, including the Waste Isolation Pilot Plant Waste Acceptance Criteria and RCRA Land Disposal Restrictions. The treatment process will size and/or re-package waste into standardized containers; destroy polychlorinated biphenyls, eliminate excess liquids and corrosive characteristics; minimize volatile organic compounds and hydrogen gas generation; and reduce hydrogen layers to increase the wattage (radioactive components) allowed per container.

This project is necessary to meet the requirement in the October 1995 Idaho Settlement Agreement to ship all transuranic waste out of Idaho by 2015 (target) and no later than 2018. It is also necessary to meet site treatment plan milestones under the Federal Facility Compliance Act. In accordance with the agreement, facility construction will be completed by December 31, 2002, and operations will commence no later than March 31, 2003. Shipments of waste from the Advanced Mixed Waste Treatment Project are expected to begin in late 2003. The State of Idaho will provide RCRA and Clean Air oversight. The EPA Region 10 will provide oversight of the Toxic Substances and Control Act permit.

The FY 1997 appropriation of $70.0 million represented an estimate of the private sector's capital investment based on the December 1994 Feasibility Study. The budget for FY 1999 of $87.3 million, for FY 2000 of $110.0 million, and the Budget Request for $65.0 million in FY 2001 for this project, provides funding for the initiation of physical construction (including advance procurement of major equipment) phase of this project. These funds will also cover the remote possibility of termination of the contract. They will eventually be used to reimburse capital expenditures after services commence.

Future budget requests will be made within the Defense Environmental Restoration and Waste Management Appropriation for the purpose of making payments to the vendor - $434.8 million for operations and $22.7 million D&D. An additional $65.4 million from the appropriation will be requested to provide M&O support for the privatization effort and $0.5 million for other project office costs.

4. Details of Cost Estimate

Total capital cost is estimated to be $569.4 million based on the fixed-price contract awarded in December 1996.

5. Method of Performance

The Advanced Mixed Waste Treatment Project is a privatized, fixed-price contract and will be performed in three phases. Phase I consists of facility permitting, preliminary facility/process design, and establishing the facility safety basis; Phase II consists of final facility/process design, facility construction and testing; Phase III consists of facility operations, RCRA Closure & Decontamination & Decommission. The services shall treat waste to meet RCRA Land Disposal Restrictions. Meeting this requirement will also fulfill Waste Isolation Pilot Plant Waste Acceptance Criteria, and Toxic Substances and Control Act requirements. Transportation support for shipment of the wastes from Idaho National Engineering and Environmental Laboratory to the Waste Isolation Pilot Plant is required and will be performed under a separate Waste Isolation Pilot Plant managed contract.

6. Schedule of Project Funding

(Dollars in Thousands)

	Prior Years	FY 1998	FY 1999	FY 2000	Outyears	Total
Project Cost						
Facility Cost						
Payments to Vendors	0	0	0	0	569,400	569,400
Other Project Cost						
Facility Operations – payments to vendors [a]	1,300	6,800	8,200	0	457,500	473,800
Facility Support – M&O support/Other [b]	1,900	1,500	1,000	950	65,900	71,250
Total, Other Project Cost . .	3,200	8,300	9,200	950	523,400	545,050
Total Project Cost	3,200	8,300	9,200	950	1,092,800	1,114,450

[a] Of the total, $16.3 million will be paid for preliminary facility and process design activities, licensing and permitting (Phase 1 costs) funded from EM base operating program. Outyear payment to vendors include $434.8 million for facility operations and $22.7 million for D&D.

[b] Facility infrastructure support (e.g. utilities, fire protection, etc.).

7. Related Annual Funding Requirements

(FY 2000 dollars in thousands)

	Current Estimate	Previous Estimate
Given the nature of the privatization contract these operating costs are shown as part of the Total Project Cost.		
Total related annual funding	N/A	N/A

98-PVT-2, Spent Nuclear Fuel Dry Storage, Idaho Falls, Idaho

Significant Changes

The Department has selected a contractor for the Spent Nuclear Fuel Dry Storage Project (SNFDSP). The schedule to begin operations has been changed from July 1, 2003 to December 31, 2004. An incentive is offered for each day that the contractor can begin operation ahead of the contract date, December 31, 2004. The increase in total estimated cost (TEC) and total project cost (TPC) is based on the actual prices established in the contract adjusted for contractual clauses that provide for economic price adjustments (Phase II and III), incentive for early completion and cost reimbursement of Phase I-B. An independent government cost estimate prepared for DOE by the U.S. Army Corps of Engineers supports the project cost increase. The NRC licensing activity (Phase I-B) is excluded from the TEC and is funded by operating rather than privatization dollars. The appropriate schedule reflects funding to support an accelerated construction schedule. Section 2, the financial schedule, was revised to reflect the contract cost profile.

1. Construction Schedule History

	Fiscal Quarter				Total Estimated Cost ($000)	Total Project Cost ($000)
	A-E Work Initiated	A-E Work Completed	Physical Construction Start	Physical Construction Complete		
FY 1998 Budget Request (Preliminary Estimate)	n/a		2Q 1999	3Q 2001	87,000	123,831
FY 1999 Budget Request (Preliminary Estimate)	n/a		2Q 1999	3Q 2001	87,000	123,831
FY 2000 Budget Request (Preliminary Estimate)	n/a		2Q 1999	3Q 2003	120,000	163,750 [a]
FY 2001 Budget Request (Baseline Title I equivalent)	2Q 2000	2Q 2003	2Q 2003 [d]	3Q 2004	197,858 [b]	245,809 [c]

[a] This TPC estimate was based on a hybrid of the M&O and U.S. Army Corps of Engineers (USACE) estimates. A significant portion of the increase is due to the under estimation of design and construction costs for a NRC licensed facility.

[d] These are the contract dates. However, funding is requested to support an accelerated schedule starting construction the 1st quarter of FY 2002 and ending the 4th quarter of FY 2003.

[b] This TEC estimate is based on the selected contractors proposed price of $181,048 adjusted by $16,810 for contract clauses that will increase cost. Contractual clauses provide for economic price adjustments (Phase II), and incentive for early completion. The cost of the licensing phase (Phase I-B) is not included in this TEC since it is not being funded out of the privatization account.

[c] This TPC estimate is based on the selected contractors proposed price of $217,409 adjusted by $28,400 for contract clauses that will increase cost. Contractual clauses provide for cost reimbursement for NRC licensing activities (Phase I-B), economic price adjustments (Phase II and III) and incentive for early completion.

2. Financial Schedule

(dollars in thousands)

Fiscal Year	Appropriations	Obligations	Costs
Capital (design and construction)			
1997	0	0	0
1998	27,000	0	0
1999	20,000	0	0
2000	4,985	51,985	0
2001	25,092	25,092	67,092
2002	49,332	49,332	0
2003	71,449	71,449	0
2004	0	0	111,500
2005	0	0	19,266
2006	0	0	0
Outyears	0	0	0

The timing of the requested appropriations reflects the needed funds for obligation to the contract in accordance with the accelerated fiscal year cost profile proposed by the contractor plus some acceleration of funding for termination risk. The SNFDSP Contract is a fixed price contract (with the exception of Phase I-B). Failure to obligate funding to the contract in accordance with the contract cost profile could result in the need to equitably adjust the contract price.

The SNFDSP contract allows an economic price adjustment for Contract phases II, III, and IV. The values in the schedule above include the estimated adjustment for Phase II.

The SNFDSP contract includes a provision for an incentive of $13,000 per day for each day that the start-up of the facility occurs in advance of December 31, 2004. This incentive is more than offset by savings achieved by getting fuel out of old generation storage sooner, due to the high costs associated with those old facilities. If the schedule is advanced to a July 1, 2003 start-up, the incentive earned would amount to approximately $7.1 million. However, the contractor's accelerated schedule estimates a construction start date of October 2001 and an October 31, 2003 start-up resulting in a projected incentive of $5.46 million. The $5.46 million is used in the funding projections. In addition to the potential to earn incentive, there is also a provision for assessing liquidated damages in the amount of $13,000 for each day the facility start-up occurs later than the December 31, 2004 date.

3. Project Description, Justification and Scope

The Spent Nuclear Fuel Dry Storage Project will provide Nuclear Regulatory Commission-licensed interim dry storage of three types of Spent Nuclear Fuel (SNF) at the Idaho National Engineering and Environmental Laboratory (INEEL). The fuel currently resides in facilities on the INEEL, at various universities, and at foreign research reactors. This project would place SNF containing approximately 55 Metric Tons Heavy Metal into dry interim storage.

This project includes the following services:

- Design and NRC license for a SNF dry transfer and storage facility. (The contractor is the licensee.)
- Conceptual design for a NRC licensed transportation system to transfer the SNF out of Idaho.
- Dry Transfer Capability to allow cask receipt from the M&O and dry transfer of SNF assemblies into standard dry storage canisters. The canisters are standard canisters designed for storage in future federal respository.
- Independent Spent Fuel Storage Installation (ISFSI) as defined by NRC license.
- Loading of the designated fuels into the ISFSI beginning as early as July 1, 2003, and completing in FY 2009.
- Operation of Dry Transfer Facility and ISFSI in accordance with the contractor's NRC license conditions through FY 2009.

An October 17, 1995, Federal court-ordered agreement between the State of Idaho, DOE, and the Navy directs that all spent nuclear fuel will be out of wet storage by 2023 and shipped out of the State of Idaho by January 1, 2035. The Order additionally mandates an appropriation request for fiscal year 1998 for DOE to initiate procurement of dry storage at the INEEL. The Order requires initiation of SNF loading into dry storage by July 1, 2003.

The feasibility of modifying existing INEEL facilities to provide these functions was evaluated. It was determined that new facilities would be needed to meet programmatic requirements. Reasons behind this determination include:

- The cost of modifying current INEEL facilities is not significantly lower than the cost of new facilities.
- The cost of attempting to obtain a NRC license for existing INEEL facilities, as well as the associated technical issues of licensing DOE-regulated facilities, would be cost and schedule prohibitive. Note: A determination was made by DOE General Council with concurrence from NRC that interim fuel storage for these three fuel types will be NRC licensed.
- The dry transfer and interim storage facilities may be needed to transfer the other DOE-owned SNF to dry storage. The need for SNF transfer capability spans 35 years.

The project facilities will be constructed near the Idaho Nuclear Technology and Engineering Center, formerly known as the Idaho Chemical Processing Plant.

The SNF will be delivered to the contractor in a shipping cask from on-site shipments. The successful contractor will receive, process, and store three selected fuel types that, based on currently available fuel condition data, are believed to be undamaged and have intact cladding. However, these selected fuels may require special handling and treatment to meet NRC requirements for placement in an ISFSI. Waste generated by fuel transfer operations should be minimized, but process generated waste stream disposal shall be the responsibility of the successful bidder. The fuel will not be disposed of in Idaho and fuel disposal is not within

the scope of this contract. The contract manadates the use of the preliminary design specifications for standardized Spent Nuclear Fuel canisters that are acceptable to the repository.

The funding request for Privatization allows DOE to award the contract for SNF receipt, processing and storage services. The funds cover design and license application preparation, construction costs of the dry transfer facility, procurement of the storage canisters, and the dry storage system.. Upon completion of the fixed price design and license application deliverable, which includes acceptance of the license application by the NRC, a single payment will be made from the privatization account. The cost plus fixed fee effort during the period NRC is reviewing the license application and until they issue the license, will be paid monthly from the operation account. The fixed price construction of the facilities will be amortized over the first 800 units of spent fuel processed and paid out of the privatization account as fixed unit prices when the fuel is successfully placed in the NRC licensed ISFSI. Also, if it would become necessary, the funds appropriated for design, licensing, and construction must be available from privatization funds to cover termination of the contract for the convenience of the Government.

The latest increase in estimated capital cost of the project (from $120 million to $197.8 million) is based on the actual contract price (including an estimate of earned incentive and escalation) and is supported by the independent government cost estimate prepared by the U.S. Army Corps of Engineers. Due to estimates of the overall time frame to design, license and construct the facility, the contract start-up schedule was established as December 31, 2004. The contract contains an incentive for earlier start of operation.

In addition to the privatization request, a total of approximately $48 million will be provided from the Defense Environmental Restoration and Waste Management Appropriation to make payments for NRC licensing support, dry transfer and interim storage operations.

Other costs to DOE will include support activities required by the INEEL Management and Operations contractor to provide support to DOE and deliver spent nuclear fuel to the successful vendor in the out-years. The planning for these costs is included in the budget plans for the INEEL M&O Contractor, and is not included in this data sheet.

4. Details of Cost Estimate

(dollars in Thousands)

	Current Estimate [a]	Previous Estimate
Total, Engineering design, license application preparation and administration costs	67,092	15,000
Total, Construction Costs (including management and indirect costs)	130,766	105,000

[a] The current estimate is based on the selected contractors proposed price of $181,048 adjusted by $16,810 for contract clauses that will increase costs. Contractual clauses provide for economic price adjustments (Phase II), and incentive for early completion. **The cost of the licensing phase (Phase I-B) is not included in this TEC since it is not being funded out of the privatization account.**

Total, line item costs	197,858	87,000

5. Method of Performance

The NRC would license operation of the dry transfer facility and ISFSI. The design life for the ISFSI is 40 years and the design life for the dry storage canisters is 100 years. NRC licensing of the ISFSI would be for a 20-year period with a possible extension for another 20 years. The financing, design, permitting, construction, and operation are the responsibility of the contractor. The cost estimate is based on the assumption that the 10 CFR 72.30 c (1) financial assurance requirement for Decontamination and Decommissioning can be satisfied through a commitment from DOE and not prepayment by the private contractor. After completion of dry transfer of the selected fuel types to the ISFSI, the Department will have the right to exercise an option to transfer and store additional fuel. The first phase (Phase I-A) of the project will be paid on a fixed price basis upon completion of specified deliverables. The licensing phase (Phase I-B) will be performed under a cost plus fixed fee arrangement. The cost of construction and start-up will be amortized over the first 800 units of spent fuel processed. The contractor will be paid when spent fuel assemblies are placed in dry storage based on fixed unit prices established in the contract.

6. Schedule of Project Funding

(Dollars in Thousands)

	Prior Years	FY 2000	FY 2001	Outyears	Total b/
Total Project Cost (Agency Requirements)					
Total Facility Costs	0	0	67,092	130,766	197,858
Other Project Cost	0	0	0	0	0
Facility Licensing and Operations [a]	0	0	3,122	44,830	47,951
Facility Support (M&O/Other) [b]	0	0	0	0	0
Total Other Project Costs	0	0	3,122	44,830	47,951
Total Project Cost (TPC)	0	0	70,214	175,596	245,809

[a] Facility operation costs will be paid out of operation funds and includes Phase I-B costs. Phase I-B of the contract is being performed on a cost reimbursable basis due to uncertainty in the overall period of time the licensing process may take. Having this work performed on a cost plus basis rather than a fixed price eliminates the need for the contractor to build in additional contingency into its price, and is expected to result in the best value to the government. This licensing phase is funded out of operating dollars and not privatization funds.

[b] The table above reflects costs associated with the SNFDSP contract, and does not include $768 in historical costs incurred during FY 1998 and Fy 1999 by the INEEL M&O contractor for their past support of this privatization procurement effort. This contract is a federal procurement.

7. Related Annual Funding Requirements

(Dollars in Thousands)

	Current Estimate	Previous Estimate
Given the nature of the privatization contract, these operating costs are shown as part of the Total Project Cost.	n/a	n/a
Total related annual funding	n/a	n/a

8. Design and Construction of Federal Facilities

Not applicable for contractor owned facilities under privatization contracts.